

REMARKS

The non-final Office Action mailed August 10, 2005, has been reviewed and carefully considered. Claims 8 and 13 have been amended. Claims 1-7 are withdrawn and Claims 9 and 14 were previously canceled. Claims 8, 10-13 and 15-17 are pending.

In paragraph 3 on page 2 of the Office Action, claims 8, 10-13 and 15-17 were rejected under 35 U.S.C. § 102(b) over Kobayashi et al.

Applicant respectfully traverses the § rejection, but in the interest of expediting prosecution have amended the claims to overcome the rejection.

Kobayashi et al. disclose a magnetic sensor that includes a flux guide formed completely over the sensor element.

In contrast, Applicant's invention, as recited in the independent claims includes a tunnel valve disposed at a first shield layer, the tunnel valve comprising a free layer distal to the first shield layer, a first insulation layer formed over the first shield layer and abutting the sides of the tunnel valve and a flux guide deposited over the first insulation layer and onto a portion of a first and second side of the tunnel valve, the flux guide making contact with the tunnel valve at the free layer only on the first and second sides of the tunnel valve with a gap therebetween. A second insulation layer is disposed over the flux guide and onto only a portion of the tunnel valve to encapsulate the flux guide and to leave a portion of the tunnel valve exposed. A second shield layer is then deposited over the second insulation, wherein the flux guide is physically isolated from the first and second shield layers by the first and second insulation layers to prevent current shunts therefrom.

Accordingly, Kobayashi et al. fail to disclose teach, or suggest the features of Applicant's invention, Applicant submits that the claims 8 and 13 are patentable over the cited reference.

Dependent claims 10-12 and 15-17 are also patentable over the references, because they incorporate all of the limitations of the corresponding independent claims 8 and 13. Further dependent claims 10-12 and 15-17 recite additional novel elements and limitations. Applicant reserves the right to argue independently the patentability of these additional novel aspects. Therefore, Applicant respectfully submits that dependent claims 10-12 and 14-17 are patentable over the cited references, and request that the objections to the independent claims be withdrawn.


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On the basis of the above amendments and remarks, it is respectfully submitted that the claims are in immediate condition for allowance. Accordingly, reconsideration of this application and its allowance are requested.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Attorney for Applicant, David W. Lynch, at 423-757-0264.

Respectfully submitted,

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